HIGH RATES OF CHRONIC CONSTIPATION IN INFLAMMATORY BOWEL DISEASE PATIENTS

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Background

- The most common presenting symptom for IBD is diarrhea; however, constipation can be seen in a significant number of patients in clinical practice.
- Constipation negatively impacts quality of life
- Multiple potential etiologies could explain the development of constipation in patients with IBD (stricture, surgery, narcotics, etc.).
- Identifying which patients with IBD develop constipation may guide providers to screen for and treat constipation
- Previous studies have not identified the prevalence and incidence of constipation in IBD patients

Hypothesis/Aims

-Hypothesis: a significant number of patients with IBD present with constipation as a symptom of their condition.
-Primary Aim: To evaluate prevalence of constipation in IBD patients identify risk factors for constipation in IBD patients

Methods

- Retrospective case-control study
- Inclusion Criteria: Confirmed IBD outpatients seen at least once in 12 months in our clinic.
- Exclusion Criteria: those with a known bowel obstruction, short gut, colectomies, and an ostomy.
- Primary outcome: Subjective Constipation – Patient subjectively reports less than three bowel movements per week.
- Secondary outcome: Constipation per stringent Rome IV criteria (straining, lumpy/hard stool, sensation of incomplete evacuation, sensation of anorectal blockage, manual maneuvers, and < 3 BM/week)

Results

Table 1: Comparing Patient Demographics & Diagnoses, UC Phenotype, CD Phenotype, Baseline Evaluation, Clinical Disease Activity, Labs, Medication by Subjective Constipation and Rome IV Definition

	Constipation (subjective assessment)				Constipation by Rome Criteria IV			
	N (N=249)	Y (N=251)	Total (N=500)	p value	No (N=363)	Yes (N=137)	Total (N=500)	p value
Age				< 0.001				0.023
Mean (sd)	40.669 (16.431)	45.618 (16.089)	43.158 (16.432)		42.127 (16.517)	45.883 (15.943)	43.158 (16.432)	
Range	20.000 - 85.000	20.000 - 88.000	20.000 - 88.000		20.000 - 88.000	21.000 - 87.000	20.000 - 88.000	
Nmiss	1	0	1		1	0	1	
Gender				< 0.001				< 0.001
F	96 (38.6%)	171 (68.1%)	267 (53.4%)		172 (47.4%)	95 (69.3%)	267 (53.4%)	
M	153 (61.4%)	80 (31.9%)	233 (46.6%)		191 (52.6%)	42 (30.7%)	233 (46.6%)	
Diagnosis				0.09				0.443
CD	161 (64.7%)	180 (71.7%)	341 (68.2%)		244 (67.2%)	97 (70.8%)	341 (68.2%)	
UC	88 (35.3%)	71 (28.3%)	159 (31.8%)		119 (32.8%)	40 (29.2%)	159 (31.8%)	
Any Inflammation				0.161				0.79
N	130 (55.1%)	151 (61.4%)	281 (58.3%)		201 (57.9%)	80 (59.3%)	281 (58.3%)	
Y	106 (44.9%)	95 (38.6%)	201 (41.7%)		146 (42.1%)	55 (40.7%)	201 (41.7%)	
Fiber				< 0.001				< 0.001
N	249 (100.0%)	153 (61.0%)	402 (80.4%)		330 (90.9%)	72 (52.6%)	402 (80.4%)	
Y	0 (0.0%)	98 (39.0%)	98 (19.6%)		33 (9.1%)	65 (47.4%)	98 (19.6%)	
Any constipation med				< 0.001				< 0.001
N	249 (100.0%)	23 (9.2%)	272 (54.4%)		265 (73.0%)	7 (5.1%)	272 (54.4%)	
Y	0 (0.0%)	228 (90.8%)	228 (45.6%)		98 (27.0%)	130 (94.9%)	228 (45.6%)	
Miralax				< 0.001				< 0.001
N	249 (100.0%)	47 (18.7%)	296 (59.2%)		275 (75.8%)	21 (15.3%)	296 (59.2%)	
Y	0 (0.0%)	204 (81.3%)	204 (40.8%)		88 (24.2%)	116 (84.7%)	204 (40.8%)	
Docusate				< 0.001				< 0.001
N	249 (100.0%)	144 (57.4%)	393 (78.6%)		318 (87.6%)	75 (54.7%)	393 (78.6%)	
Y	0 (0.0%)	107 (42.6%)	107 (21.4%)		45 (12.4%)	62 (45.3%)	107 (21.4%)	
Other				< 0.001				< 0.001
N	249 (100.0%)	110 (43.8%)	359 (71.8%)		305 (84.0%)	54 (39.4%)	359 (71.8%)	
Y	0 (0.0%)	141 (56.2%)	141 (28.2%)		58 (16.0%)	83 (60.6%)	141 (28.2%)	
Opioids				< 0.001				< 0.001
N	39 (15.7%)	16 (6.4%)	55 (11.0%)		51 (14.0%)	4 (2.9%)	55 (11.0%)	
Y	210 (84.3%)	235 (93.6%)	445 (89.0%)		312 (86.0%)	133 (97.1%)	445 (89.0%)	
Anticholinergic				0.185				0.102
N	165 (66.3%)	152 (60.6%)	317 (63.4%)		238 (65.6%)	79 (57.7%)	317 (63.4%)	
Y	84 (33.7%)	99 (39.4%)	183 (36.6%)		125 (34.4%)	58 (42.3%)	183 (36.6%)	
Tricyclic				0.013				0.002
N	229 (92.0%)	213 (84.9%)	442 (88.4%)		331 (91.2%)	111 (81.0%)	442 (88.4%)	
Y	20 (8.0%)	38 (15.1%)	58 (11.6%)		32 (8.8%)	26 (19.0%)	58 (11.6%)	
Biologics				0.312				0.217
N	3 (1.2%)	1 (0.4%)	4 (0.8%)		4 (1.1%)	0 (0.0%)	4 (0.8%)	
Y	246 (98.8%)	250 (99.6%)	496 (99.2%)		359 (98.9%)	137 (100.0%)	496 (99.2%)	
Immunomodulators				0.114				0.014
N	91 (36.5%)	75 (29.9%)	166 (33.2%)		132 (36.4%)	34 (24.8%)	166 (33.2%)	
Y	158 (63.5%)	176 (70.1%)	334 (66.8%)		231 (63.6%)	103 (75.2%)	334 (66.8%)	
Mesalamine				0.418				0.444
N	73 (29.3%)	82 (32.7%)	155 (31.0%)		109 (30.0%)	46 (33.6%)	155 (31.0%)	
Y	176 (70.7%)	169 (67.3%)	345 (69.0%)		254 (70.0%)	91 (66.4%)	345 (69.0%)	
Systemic Corticosterioids				0.977				0.959
N	24 (9.6%)	24 (9.6%)	48 (9.6%)		35 (9.6%)	13 (9.5%)	48 (9.6%)	
Y	225 (90.4%)	227 (90.4%)	452 (90.4%)		328 (90.4%)	124 (90.5%)	452 (90.4%)	
Topical Mesalamine				0.315				0.539
N	248 (99.6%)	251 (100.0%)	499 (99.8%)		362 (99.7%)	137 (100.0%)	499 (99.8%)	
Y	1 (0.4%)	0 (0.0%)	1 (0.2%)		1 (0.3%)	0 (0.0%)	1 (0.2%)	
Topical Corticosteroids				0.598				0.611
N	243 (97.6%)	243 (96.8%)	486 (97.2%)		352 (97.0%)	134 (97.8%)	486 (97.2%)	
Y	6 (2.4%)	8 (3.2%)	14 (2.8%)		11 (3.0%)	3 (2.2%)	14 (2.8%)	

Results/Conclusions

- A total of 500 patients included, 47% male and 53% female patients. 68% CD, 32% UC patients.
- Overall, 50.1% met the subjective criteria for constipation and 27.4% met Rome IV criteria. (Table 1)
- Female patients were found to significantly ($p< 0.001$) have at least 2 Rome IV constipation modalities compared to men.
- Constipated patients significantly ($p< 0.001$) used more laxatives and fiber. There was a significant ($p< 0.001$) increase in constipation among patients who were using opioids, as they also scored in at least two Rome IV criteria.
- No significant association was seen between constipation and active IBD activity, disease characteristics, prior surgeries, or medication use.

Discussion

- A large proportion of IBD patients deal with constipation regardless of disease activity, prior surgery, or medication use.
- Rates of IBD patient constipation is tied to female sex and opioid use which seen in the general population
- The prevalence does not seem driven by inflammation or post-surgical anatomy, so other etiologies such as slow transit and pelvic dysfunction should be considered
- Limitations of the study: Possible recall bias regarding constipation frequency. Unobtainable patient SES and diet.